orifice with her own ordure. This she must have brought up from the bottom of the hole; and she plastered it right and left with the flat sides of her beak, as with a trowel.

I never saw the male bring anything but food; and I never found any fruit which had been rejected under the tree, and but very little ordure, which latter had apparently been thrown out by the female when the closing-work was finished.

The male bird would alight near, then fly to the hole, holding on to the bark by his claws, and knock with his beak. On this the points of that of the female appeared and received the fruit, when the male flew off.

I herewith beg to submit some of the substance with which the hole was closed up, which is manifestly what I suppose it to be, and when fresh, possesses great viscidity. It contains the remains of insects, which probably the female had eaten before she entered the hole—thus confirming Dr. Jerdon's statement as to their various diet.

The hole was at first perhaps 6 inches in height, and 3 or 4 wide. When closed up, the opening at the widest part was a little larger than would admit the finger. It should, however, be borne in mind that the bill opened upwards, and thus had 3 or 4 inches play. The plastering-operation took two or three days, after which the ordure was thrown out.

The third Hornbill used to hover about, watch proceedings, and sometimes quarrel with the accepted lord, but he never brought food to the female.

On May 7, thinking that I had given time enough for the female to lay her three eggs, which I wanted, I got a ladder, opened out the nest, and with some difficulty got out the bird, who was fat and in good condition, with the desired eggs (three). At first she could scarcely fly, but did so after a little time.

The natives, who know the habits of these birds well, told me that the female digs herself out directly her newly hatched young need food; and this is most probably correct.

7. Notes on *Ploceus baya* and its Nest.

By C. Horne, F.Z.S.

(Plate XVII.)

In submitting these notes upon *Ploceus baya* I do not suppose that I am narrating anything not previously observed, although I have never met with any account of the method in which this ingenious bird obtains its material.

I cannot solve the mystery of the lumps of clay found in the nests, although I have examined many at all seasons for the purpose. I may remark, however, that I have seldom, if ever, found a finished nest without them.

Here is an extract from my journal:—"This morning (July 7, 1865), as I passed our solitary palm tree (*Phœnix dactylifera*) in the field, I heard a strange twittering overhead, and looking up saw such a pretty sight as I shall never forget.

"In this tree hung some thirty or forty of the elegantly formed nests of woven grass of the Baya bird, so well known to all. The heavy storms of May and June had torn away many and damaged others, so as to render them, as one would think, past repair. Not so thought the birds; for a party of about sixty had come to set them all in order.

"These little birds are about the size of a Sparrow, and have yellow in their crests, and are darker about the wings, being paler below, with shortish tails. The scene in the tree almost baffles description. Each bird and his mate thought only of their own nest. How they selected it I know not, and I should like much to have seen them arrive. I suppose the sharpest took the best nests, for they varied much in condition. Of some of the nests, two-thirds remained, whilst others were very nearly all blown away. Some of the birds attempted to steal grass from other nests, but generally got pecked away.

"As the wind was blowing freshly, the nests swung about a good deal; and it was pretty to see a little bird fly up in a great hurry with a long bit of grass in his beak. He would sit outside the nest holding on by his claws, with the grass under them. He would then put the right end into the nest with his beak, and the female inside would pull it through and put it out for him again; and thus the plaiting of the nest went on. All this was done amidst tremendous chattering, and the birds seemed to think it great fun. When a piece was used up one would give the other a peck, and he or she would fly off for more material, the other sitting quietly till the worker returned. Nests in every stage of building afforded every position for the bird, who seemed at home in all of them. The joy, the life, the activity, and general gaiety of the birds I shall never forget.

"July 11, 1865.—To-day I noticed that nearly all the nests had been repaired, and the birds were more scattered, either helping themselves to my Jowahor (*Sorghum vulgare*) in the field or collecting insects.

"July 20.—I observed some eight or ten newly built nests on the ground under the tree, which I believe to have been deliberately cut off from their supports by the thievish Striped Squirrels (*Sciurus palmarum*) for use by them in their nests. Some of these had unbroken eggs in them.

"August 18.—Noticed to-day how the birds obtain their grass. The little bird alights at the edge of the high strong Seenta grass (*Andropogon euripeta*?) with its head down, and bites through the edge to the exact thickness which it requires. It then goes higher up on the same blade of grass, and having considered the length needed, bites through it again. It then seizes it firmly at the lowest notch and flies away. Of course, the strip of grass tears off and

stops at the notch. It then flies along, with the grass streaming behind it. As the edge of the grass is much serrated, the bird has to consider and pass it through the work the right way. This serration renders it so difficult to pull a nest to pieces, and makes the same nest last for years.

In some instances the male continues to build for amusement after the nest is finished, not only elongating the tubular entrance, but also making a kind of false nest.

Before the colony ceased building there were more than seventy nests in the tree, which is represented in the photograph now exhibited (Plate XVII.). Three great notches may be seen on the trunk. These were made when the tree was smaller, by baring a side of the crown and tapping the trunk for toddy to be used in bread-making. This operation so weakened the tree, that last year in a violent storm the crown broke off, and thus destroyed the whole settlement.

8. Note on the Young of the Spotted Hyæna (*Crocuta maculata*). By Dr. J. E. Gray, F.R.S., V.P.Z.S., &c.

The British Museum has lately acquired a very young female pup of the Spotted Hyæna (*Crocuta maculata*), which was born in the Society's Gardens.

The animal is covered with a short soft fur of nearly uniform length, of a nearly uniform rather brownish-black colour, which is rather paler on the face. It is without any indication of spots. The tail is slender, tapering. There is a stuffed specimen of a rather older and larger male in the British Museum, which was preserved by M. Verreaux at the Cape; it is of the same uniform tint, but is much paler, and has become paler than it originally was on one side by exposure in the case.

I may observe that the pups of the Striped Hyæna (*Hyæna striata*) are pale and streaked like the adult. There are some specimens of very young pups of this species in the British Museum.

The skull of the very young female pup is solid; and the bones are well ossified, and united in all parts by very narrow and often indistinct sutures. The bullæ of the ears are peculiar for having a large space on the outer side of the under surface only covered with membrane, which has the opening of the ear in the upper part near the margin of its outer side. This disk occupies about one-third of the lower surface of the bony bullæ. The cutting-teeth and the canines are well developed, the cutting-teeth in each of the jaws being placed in a straight line, the outer tooth in each series being rather the largest. The grinders are not developed above the alveoli; but their situation is indicated by the dried pulps. There are three pulps on each side of each jaw: the two front ones on each side of the upper jaw, belonging to the premolars, are small; the others in both jaws are rather large.